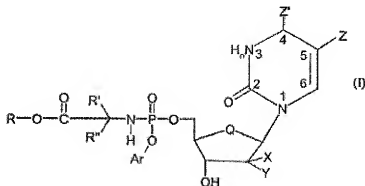


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this Application:

Listing of Claims:

1. (Currently amended) A chemical compound having formula I:



wherein:

R is selected from the group comprising alkyl, aryl and alkylaryl;

R' and R'' are independently selected from the group comprising H, alkyl and alkylaryl, or

R' and R'' together form an alkylene chain so as to provide, together with the C atom to which they are attached, a cyclic system;

Q is selected from the group comprising $-O-$ and $-CH_2-$;

X and Y are independently selected from the group comprising H, halogen, OH and $-CH_3$;

Ar is a monocyclic aromatic ring moiety or a fused bicyclic aromatic ring moiety, either of which said ring moieties is carbocyclic or heterocyclic and is optionally substituted, any such substituent being selected from the group comprising halogen, halomethyl, oxo, hydroxy, carboxy, carboxy C_{1-16} alkyl, alkoxy, alkoyl, alkoyloxy, aryloxy, aryloyl, aryloyloxy, amino, C_{1-6} alkylamino, di C_{1-6} alkylamino, cyano, azide, nitro, thiol, C_{1-6} alkylthiol, sulphonyl, sulphoxide, heterocyclic groups, alkyl groups and aryl groups;

Z is selected from the group comprising H, alkyl and halogen; and

n is 0 or 1,

wherein when n is 0, Z' is $-NH_2$ and a double bond exists between position 3 and position 4, and

when n is 1, Z' is $=O$;

or a pharmaceutically acceptable derivative of a compound of formula I the derivative which upon administration to a recipient is capable of providing directly or indirectly a compound of formula I;

with the proviso that a compound or compounds of Formula I when n is 1 and X and Y are both H and Ar is unsubstituted $-C_6H_5$ are excluded[,] except where R is $-CH_2-CH(CH_3)_2$ and one of R' and R'' is H and one of R' and R'' is $-CH_3$; ~~when n is 1 and X and Y are both H, then Ar is not unsubstituted $-C_6H_5$.~~

2. (Original) A compound according to claim 1 wherein R is selected from the group comprising a C_{1-16} primary or secondary alkyl group, a C_{5-7} carbocyclic aryl group or a C_{1-6} alkyl/ C_{5-11} aryl group.

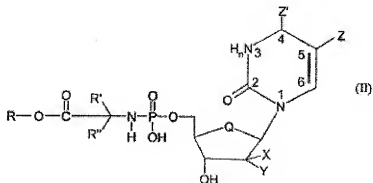
3. (Previously presented) compound according to claim 2 wherein R is selected from the group CH_3 , $-C_2H_5$ and $-CH_2C_6H_5$.

4. (Previously presented) A compound according to claim 3 wherein R is $-CH_2C_6H_5$.

5. (Previously presented) A compound according to claim 1 wherein Ar is an optionally substituted C_6 monocyclic aromatic ring moiety.

6. (Original) A compound according to claim 5 wherein Ar is selected from the group comprising $-C_6H_5$, $pCF_3C_6H_4-$, pFC_6H_4- , $pNO_2C_6H_4-$, $pClC_6H_4-$ and $oClC_6H_4-$.

7. (Previously presented) A chemical compound having formula II:



Q is selected from the group comprising -O- and -CH₂-,

R is selected from the group comprising alkyl, aryl and alkylaryl, and H,

R' and R'' are independently selected from the group comprising H, alkyl and alkylaryl, or

R' and R'' together form an alkylene chain so as to provide, together with the C atom to which they are attached, a cyclic system,

X and Y are independently selected from the group comprising H, halogen, OH and -CH₃,

Z is selected from the group comprising H, alkyl and halogen; and

n is 0 or 1,

wherein when n is 0, Z' is NH₂ and a double bond exists between position 3 and position 4, and

when n is 1, Z' is =O;

with provisos that:

when n is 1, X and Y are both H, R is -CH₃, one of R' and R'' is H and one of R' and R'' is -CH₃, then Z is not -CH=CHBr;

when n is 1, X and Y are both H, R is -CH₃, one of R' and R'' is H and one of R' and R'' is phenylethyl, phenylmethyl, indol-3-ylmethyl or indol-3-ylethyl, then Z is not F; and

when n is 0, X is not H.

8. (Previously presented) A compound according to claim 1 wherein R' and R'' are, independently, selected from the group comprising H, C₁₋₆ primary, secondary and tertiary alkyl,

C₁₋₃alkylC₅₋₇ aryl, or, when together they form an alkylene chain, they provide, together with the C atom to which they are attached, a C₃₋₈ carbocyclic aliphatic ring.

9. (Previously presented) A compound according to claim 8 wherein R' and R'' are, independently, selected from the group comprising H, methyl, benzyl and $[-]\text{CH}_2\text{CH}(\text{CH}_3)_2$, or, R' and R'' together with the C atom to which they are attached, provide a C₃₋₆ ring.

10. (Original) A compound according to claim 9 wherein R' and R'' are each methyl.

11. (Original) A compound according to claim 9 wherein one of R' and R'' is H and one of R' and R'' is methyl.

12. (Previously presented) A compound according to claim 9 wherein R' and R'', together with the C atom to which they are attached, provide a pentyl ring.

13. (Previously presented) A compound according to claim 1 wherein R' and R'' correspond to the side chains of a naturally occurring amino acid.

14. (Previously presented) A compound according to claim 1 wherein Z is selected from the group comprising H, C₁₋₆alkyl, substituted C₁₋₆alkyl, C₁₋₆alkenyl, substituted C₁₋₆alkenyl, C₁₋₆alkynyl, and halogen, where any substituent present is selected from the group comprising halogen, halomethyl, oxo, hydroxyl, carboxy, carboxy C₁₋₁₆alkyl, alkoxy, alkoyl, alkoyloxy, aryloxy, aryloyl, aryloxy, amino, C₁₋₆alkylamino, diC₁₋₆alkylamino, cyano, azide, nitro, thiol, C₁₋₆alkylthiol, sulphonyl, sulphoxide, heterocyclic groups, alkyl groups and aryl groups.

15. (Previously presented) A compound according to claim 1 wherein Q is O.

16. (Previously presented) A compound according to claim 1 wherein when n is 1, each of X and Y is H.

17. (Previously presented) A compound according to claim 1 wherein when n is 0, each of X and Y is F.

18. (Previously presented) A compound according to claim 1 wherein when n is 0, X is OH and Y is H.

19. (Previously presented) A compound according to claim 1 wherein when n is 0, X is H and Y is OH.

20. (Previously presented) A compound selected from the group comprising:

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(methoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(ethoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(benzoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(methoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(ethoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(benzoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[para-(trifluoromethyl)-phenyl-(methoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[para-(trifluoromethyl)-phenyl-(ethoxy-L-alaninyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-trifluorophenyl-(benzoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(methoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(ethoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(benzoxy-L-alaninyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-nitrophenyl-(methoxy- α , α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-nitrophenyl-(ethoxy- α , α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-nitrophenyl-(benzoxy- α,α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(methoxy- α,α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(ethoxy- α,α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[4-chlorophenyl-(benzoxy- α,α -dimethylglycyl)]-phosphate;

(E)-5-(2-bromovinyl)-2'-deoxyuridine-5'-[para-(trifluoromethyl)-phenyl-(benzoxy- α,α -dimethylglycyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(methoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(ethoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(benzoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(methoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(ethoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-fluorophenyl-(benzoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-chlorophenyl-(methoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-chlorophenyl-(ethoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-chlorophenyl-(benzoxy- α,α -cycloleucyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-trifluorophenyl-(methoxy- α,α -cycloleucinyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-trifluorophenyl-(ethoxy- α,α -cycloleucinyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-trifluorophenyl-(benzoxy- α,α -cycloleucinyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-nitrophenyl-(benzoxy-L-leucinyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[para-chlorophenyl-(benzoxy-L-leucinyl)]-phosphate;

(E)-5-(2-Bromovinyl)-2'-deoxyuridine-5'-[phenyl-(2-butyl-L-alaninyl)]-phosphate

Gemcitabine-[phenyl-(benzoxy-L-alaninyl)]-phosphate;

Gemcitabine-[para-chlorophenyl-(benzoxy-L-alaninyl)]-phosphate and

Gemcitabine-[para-chlorophenyl-(benzoxy- α,α -dimethylglycinyl)]-phosphate.

21. (Previously presented) A compound according to claim 1 for use in the treatment of cancer.

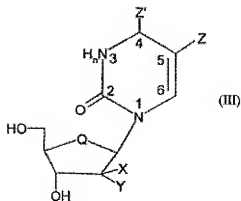
22. (Previously presented) Use of a compound according to claim 1 comprising the step of manufacturing of a medicament for the treatment of cancer comprising the compound of claim 1.

23. (Previously presented) A method for the treatment of cancer comprising administration to a patient in need of such treatment an effective dose of a compound according to claim 1.

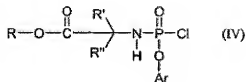
24. (Previously presented) A pharmaceutical composition comprising a compound according to claim 1 with a pharmaceutically acceptable carrier, diluent or excipient.

25. (Previously presented) A method of preparing a pharmaceutical composition comprising the step of combining a compound according to claim 1 with a pharmaceutically acceptable excipient, carrier or diluent.

26. (Original) A process for the preparation of a compound of formula I according to claim 1, the process comprising reacting of a compound of formula (III):



with a compound of formula (IV)



wherein Ar, n, Q, R, R', R'', X, Y, Z' and Z'' have the meanings described in claim 1.

27. (Previously presented) A compound according to claim 7 wherein R' and R'' are, independently, selected from the group comprising H, C₁₋₆ primary, secondary and tertiary alkyl, C₁₋₃alkylC₅₋₇ aryl, or, when together they form an alkylene chain, they provide, together with the C atom to which they are attached, a C₃₋₈ carbocyclic aliphatic ring.

28. (Previously presented) A compound according to claim 27 wherein R' and R'' are, independently, selected from the group comprising H, methyl, benzyl and $[-CH_2CH(CH_3)_2]$, or, R' and R'' together with the C atom to which they are attached, provide a C₅₋₆ ring.

29. (Previously presented) A compound according to claim 28 wherein R' and R'' are each methyl.

30. (Previously presented) A compound according to claim 28 wherein one of R' and R'' is H and one of R' and R'' is methyl.

31. (Previously presented) A compound according to claim 28 wherein R' and R", together with the C atom to which they are attached provide a pentyl ring.

32. (Previously presented) A compound according to claim 7 wherein R' and R" correspond to the side chains of a naturally occurring amino acid.

33. (Previously presented) A compound according to claim 7 wherein Z is selected from the group comprising H, C₁₋₆alkyl, substituted C₁₋₆alkyl, C₁₋₆alkenyl, substituted C₁₋₆alkenyl, C₁₋₆alkynyl, and halogen where any substituent present is selected from the group comprising halogen, halomethyl, oxo, hydroxyl, carboxy, carboxyC₁₋₁₆alkyl, alkoxy, alkoyl, alkoyloxy, aryloxy, aryloyl, aryloyloxy, amino, C₁₋₆alkylamino, diC₁₋₆alkylamino, cyano azide, nitro, thiol, C₁₋₆alkylthiol, sulphonyl, sulphoxide, heterocyclic groups, alkyl groups and aryl groups.

34. (Previously presented) A compound according to claim 7 wherein Q is O.

35. (Previously presented) A compound according to claim 7 wherein when n is 1, each of X and Y is H.

36. (Previously presented) A compound according to claim 7 wherein when n is 0, each of X and Y is F.

37. (Previously presented) A compound according to claim 7 wherein when n is 0, X is OH and Y is H.

38. (Previously presented) A compound according to claim 7 wherein when n is 0, X is H and Y is OH.

39. (Previously presented) A pharmaceutical composition comprising a compound according to claim 7 in combination with a pharmaceutically acceptable carrier, diluent or excipient.

40. (Previously presented) A method of preparing a pharmaceutical composition comprising the step of combining a compound according to claim 7 with a pharmaceutically acceptable excipient, carrier or diluent.